

The Battle of Antietam



The Battle of Antietam

September 17, 1862

Sharpsburg, Maryland

(Antietam Creek)



Agenda



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Thesis



Weak Confederate logistics resulted in an operational loss for the South, a strategic victory for the North, all without a clear tactical victory at Antietam.



The Strategic Setting



Events Preceding Antietam



01 JUN: GEN Lee replaces MG Johnston as Commander of the Confederate Army

JUN-AUG: Confederate victories in the Seven Days Battles and 2nd Bull Run

02 SEP: MG McClellan replaces MG Pope after loss at 2nd Bull Run. “Command” both Army of Potomac and Army of Virginia

04 SEP: Lee crosses the Potomac into Maryland



Events Preceding Antietam (cont)

09 SEP: Lee issues Special Order 191,
splitting the Confederate Army

11-15 SEP: Harpers Ferry
- 12,000 Union soldiers surrender on
15 SEP

13 SEP: McClellan recovers Special
Order 191

14 SEP: The Battle of South Mountain

15 SEP: Lee decides to make a stand at
Sharpsburg



Political Atmosphere



- United Act of 1862
- Upcoming November Elections
- Sec of War Stanton and Sec of Treasury Chase vs MG McClellan
- Europe
 - Trade Embargo
 - Union capture of Confederate ambassadors to France



Factors: Causing and Contributing

Socio-Economic

- Pre-war Union imposed tariffs on Southern exports
- Abolitionist (slavery)

Technological

- Industrial Revolution
 - Railroads
 - Textiles
 - Weaponry



Objectives



Union:

- Unification

Confederacy:

- Economic and Political Freedom



Weather and Terrain



Climate & Weather

Temperature

- 69 to 76 Degrees

Precipitation

- None

Light

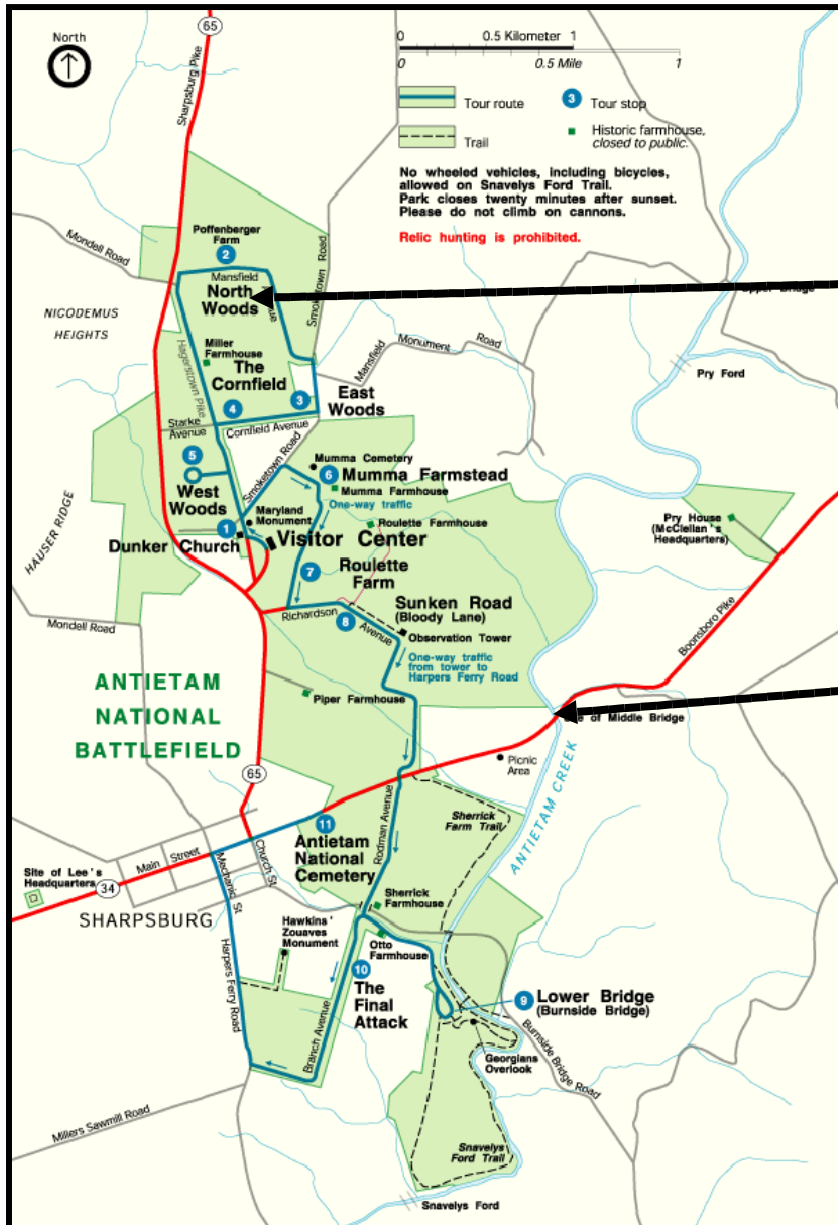
- BMNT: 0527
- Sunrise: 0554
- Sunset: 1820
- EENT: 1843







Key Terrain



Sharpsburg

Burnside Bridge



East/North/
West Woods



Cover & Concealment



Rolling Hills
Corn Fields

Trees Limestone Outcroppings
Farmer's Fences



Tactical Situation

The Army of the Potomac

Total: 87,164

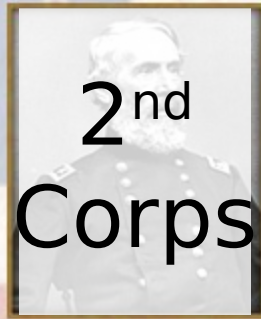
Major General George B. McClellan



1st Corps
MG Joseph Hooker



2nd Corps
MG Edwin Sumner



5th Corps
MG Fitz J. Porter



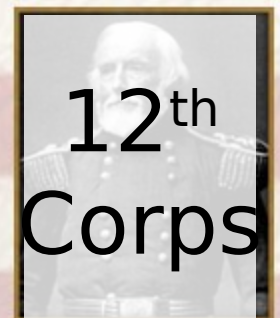
6th Corps
MG William Franklin



9th Corps
MG Ambrose Burnside



12th Corps
MGen J.K.F. Mansfield



Cavalry Division
BGen A. Pleasonton



Union President

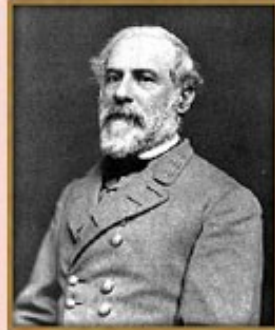


Abraham
Lincoln

The Army of the Northern Virginia

Total: 97,445

General Robert E. Lee



Right Wing
MGen James Longstreet



Left Wing
MGen Thomas J. Jackson



Cavalry Division
MGen J.E.B. Stuart

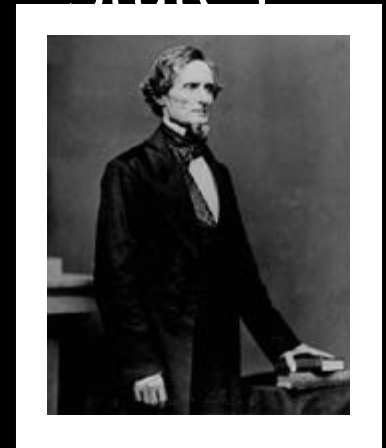


Reserve Artillery
BGen W.N. Pendleton



1st and Only

President of the
Confederate
States



Jefferson Davis



STRENGTHS



**The Army
of
The
Potomac**

53,632
(engaged)

**The Army of
Northern
Virginia**

30,646 **(engaged)**

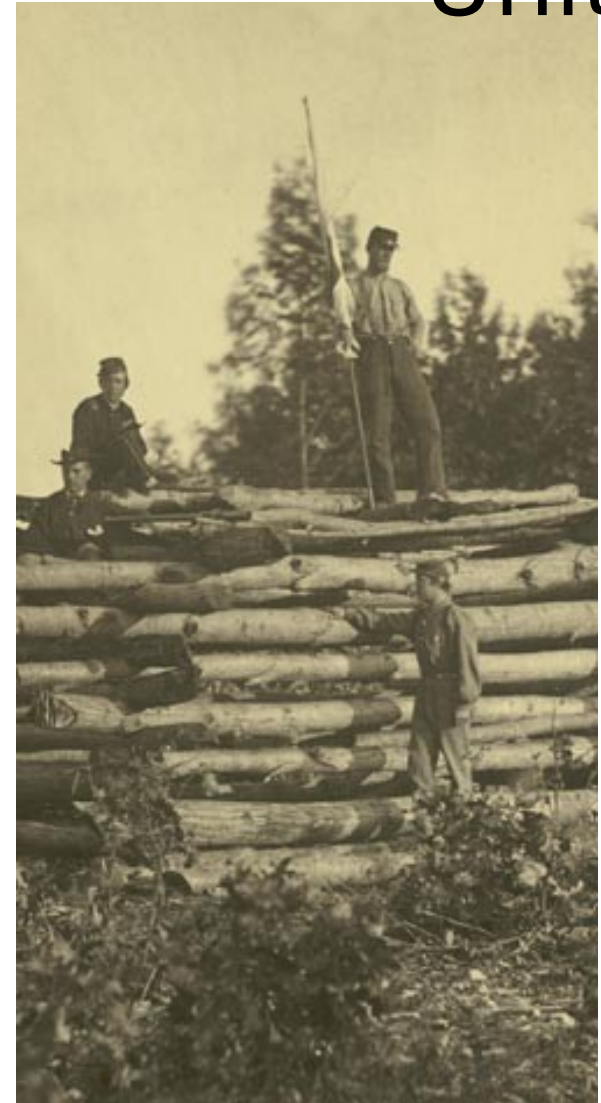


Supporting Units

Federal Signal Corps

(Overlooking the Battle of Antietam from Elks Mountain)

- Key Method of communication used by Union leaders and commanders





Weapons

- Infantry
- Artillery
- Cavalry

Technology





Infantry

Technology

Smoothbore Percussion Musket



Rifled Percussion Musket

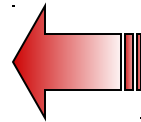


- The primary weapon of the common soldier
- The Invention of the Minie Bullet improved range
- The Rifled Musket improved accuracy
 - smooth bore = 70 -100 yards (effective range)
 - Rifle (with Minie Bullet) = 300 yards (effective range)
- Produced primary by the north, until the capture of the Federal Arsenal at Harper's Ferry



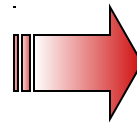
Artillery

Technology



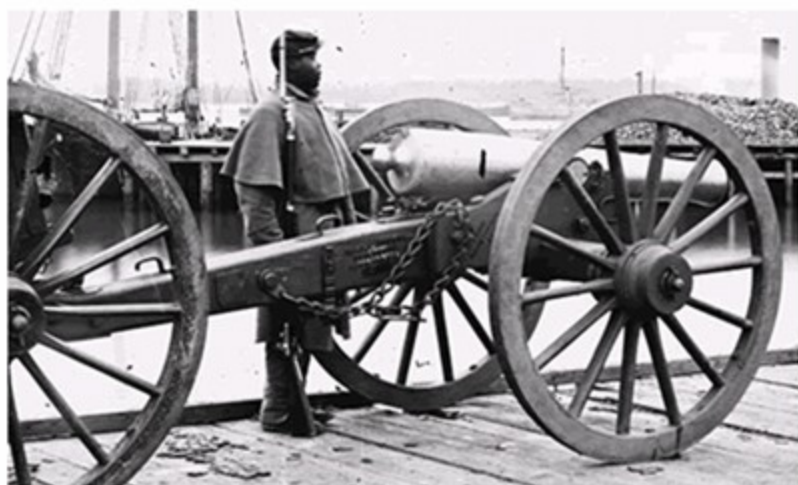
Model 1841 cannon
(smoothbore)

Model 1857
Napoleon (smooth
bore)





Artillery



Technology



 **Most Popular: Model 1847
12-lb. light gun-howitzer**

Union = 131

Confederate = 30

- Total Artillery Used at the Battle = 589 guns
 - 333 guns belonging to the Union
 - 256 guns belonging to the Confederate
- Transitioning
 - Smoothbore to rifle
 - Bronze to steel
- Range = 1,500 to 1900 yards



Cavalry



- Carbine, primary weapon (Union Cavalry)
 - breachloading, reliable and resistant to jamming
 - Manufactured in the North
- Saber – Carried by majority of cavalrymen
- Revolver
 - Close combat
 - Weapon of Choice by officers

Technology



Cavalry Saber



Colt Model 1860 Army Revolver



Sharps Model 1859 Cavalry Carbine





Command, Control, and Communications



- Command and Control was left at the Tactical level
- Many leader were wounded and junior leaders took charge
- Mission were general and broad
- Communication inadequate to control battle
- Utilized Field Signal Services



Intelligence



Union

- Signal Corps
- Cavalry scouts
- Luck (Lee's S.O. 191)
- Spies
- (developing telegraph)

Confederate

- Cavalry scouts
- Spies
- (developing telegraph)



Doctrine and Training



Overview

- Both sides commonly used Napoleonic concepts
- Frontal Assault: Main tactic
- Flanks were commonly vulnerable
- Massed forces on enemy weak points
- Armies broken down into Corps
- Offense proved to be more deadly than Defense

Artillery

- Both sides employed it as a direct fire weapon
- Fired at distances closer than max. effective ranges

Infantry

- Double-ranked lines, shoulder to shoulder
- Linear tactic designed around muzzle-loading



Doctrine and Training

Confederate

- Used the Cavalry to screen
(prevented MG McClellan from discovering true numbers and force employment)
- Tie in the flanks to the Potomac
- Grouped in Mass and practice in

Maneuver

Union

- Failed to utilize Reserve forces
- Used the Cavalry to screen
- Cavalry largely used as Guards and Messengers for Corps and Division Headquarters
- Not employed effectively



Condition and Morale



Morale

- Confederate – Low
 - exhausted by the summer campaign
 - supplies and food rations are limited
 - strengths reduced because of casualties, stragglers, and deserters
- Union – Moderate
 - many soldiers were new to battle
 - Untrained and inexperienced



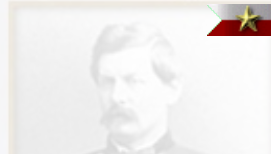
Health Conditions

- Bruised and battered
- Weaken by Diarrhea
- Fatigue



Leadership

Major General George B. McClellan



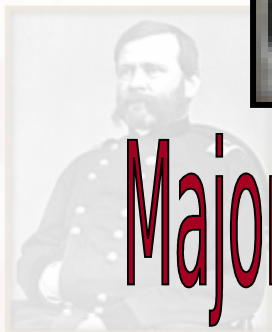
1st Corps
MG Joseph



5th Corps
MG Porter



6th Corps
MG William Franklin



Cavalry Division
Gen A. Pleasonton

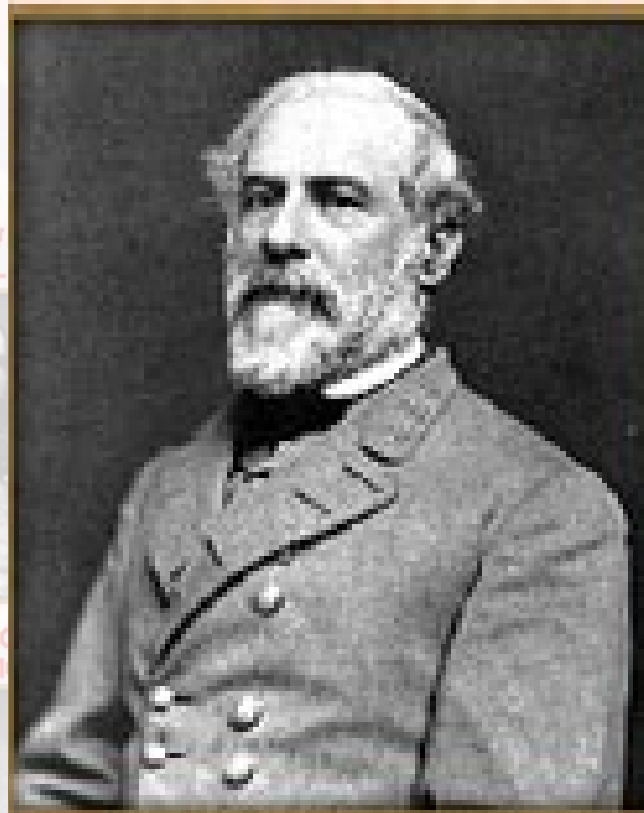


Major General George B. McClellan



Leadership

General Robert E. Lee



Right W
MGen James L



ling
J. Jackson



General Robert E. Lee



Immediate Military Objectives



MG George McClellan

Tactically: Repel General Lee and drive his forces back into Northern Virginia

Operationally: No decisive plan to bring about or sustain any series of battles that would exploit a tactical success.

Gen. Robert E. Lee

Tactically: To capture supply depot at Harper's Ferry and to seize Hagerstown in order to sustain operations further north

Operationally: Split the Army and maneuver in order to secure lines of communication by implementing his tactical plan at Harper's Ferry and Hagerstown



Battlefield Action



Morning Phase

Morning Phase Chronology

- 0545 Hooker's initial move
- 0615 Hooker and Jackson skirmish
- 0700 BG Hood arrives
- 0720 BG Hood is thwarted
- 0730 Union XII Corps deploys into
The East Wood
- 0830 MG Sedgwick's DIV move into
The East Woods
- 0900 Union I&XII Corps exhausted
- 0900 Union BG French's DIV & BG
Richardson's DIV arrive to
support
- 1030 Lull in fighting (parts of the
battle)
- 1030 Union BG French & BG
Richardson Divisions assault

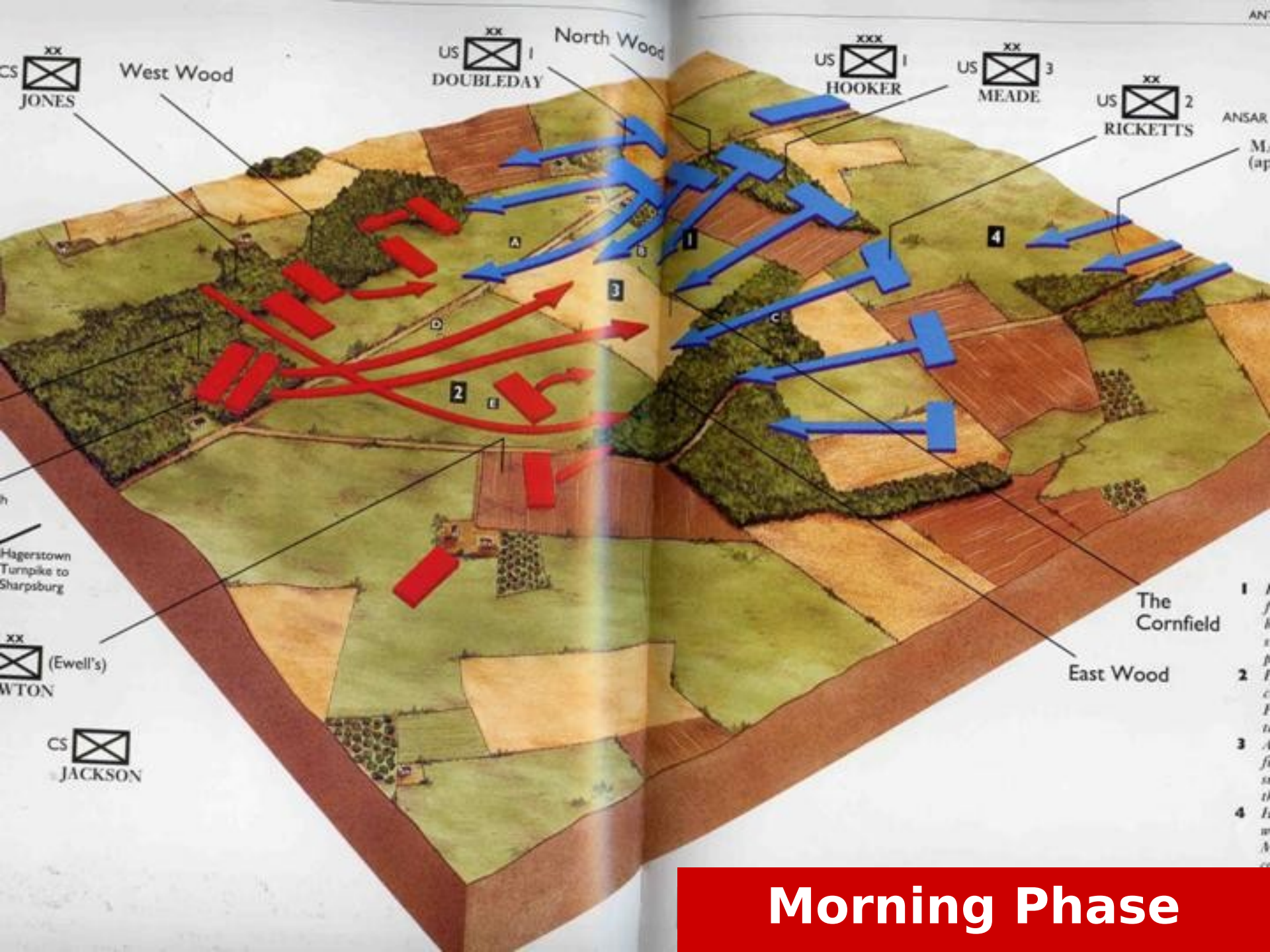
• **Union troops under MG Hooker**

- 1st DIV BG Doubleday
- 2nd DIV BG Ricketts
- 3rd DIV BG Meade
- MG Mansfield approaching
with XII

• **Confederate troops under**

MG Jackson corps

- BG Jones's DIV
- BG Hood's DIV
- BG Lawton commanded
Ewell's DIV



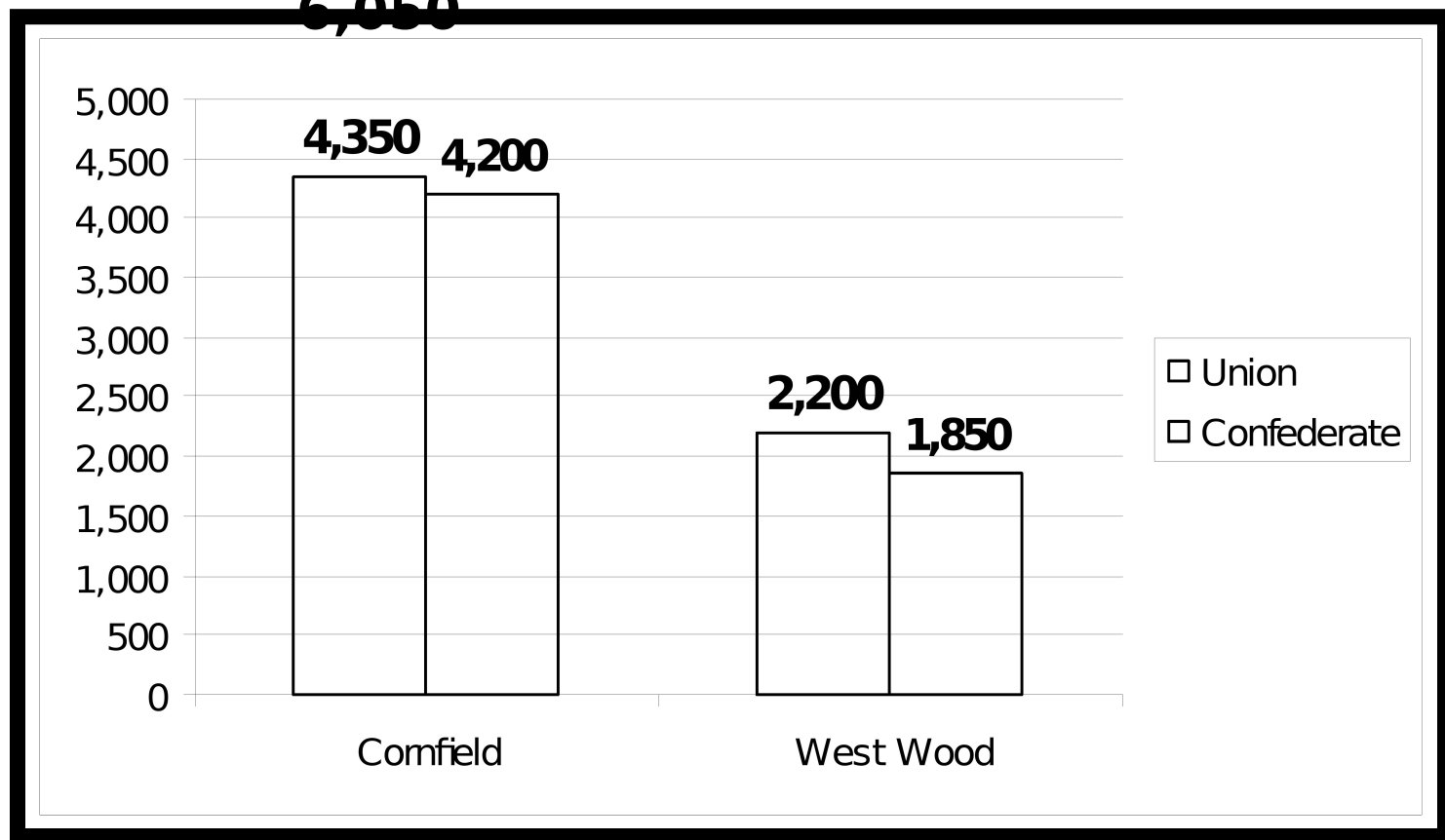
Morning Phase



Morning Phase Casualties



Union ★
6,660
Confederate ★
6,050





Midday Phase



Midday Phase Chronology

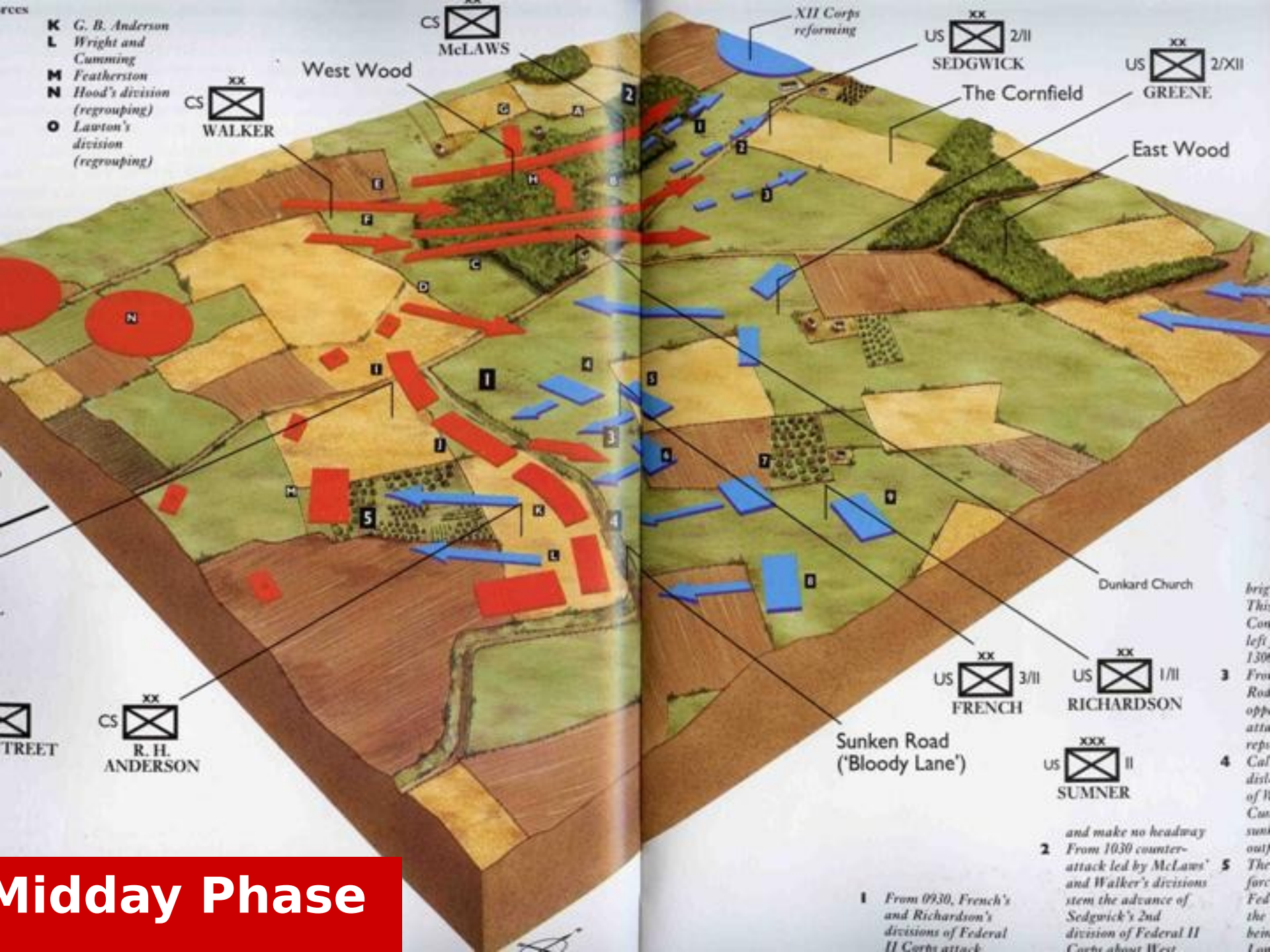
- 1300 MG Burnside captures the stone bridge
- 1300 Action continues at the Sunken Road
- 1400 BG Hill reconstitutes forces

- **Union forces under MG Sumner's II corps**

- 1st DIV BG Richardson
- 2nd DIV MG Sedwick
- 3rd DIV BG French
- XII, 2nd DIV BG Greene
- MG Franklin's VI core in route

- **Confederate forces under MG Longstreet**

- MG McLaw's DIV
- BG Walker's DIV
- MG Hill's DIV
- MG Anderson's DIV



K G. B. Anderson
L Wright and Cumming
M Featherston
N Hood's division (regrouping)
O Lawton's division (regrouping)

CS **XX**
WALKER

CS **XX**
McLAWS

West Wood

XII Corps reforming

US **XX** 2/II
SEDGWICK

The Cornfield

US **XX** 2/XII
GREENE

East Wood

STREET

CS **XX**
R. H. ANDERSON

Dunkard Church

US **XX** 3/II
FRENCH

US **XX** 1/II
RICHARDSON

Sunken Road ('Bloody Lane')

US **XXX** II
SUMNER

Midday Phase

1 From 0930, French's and Richardson's divisions of Federal II Corps attack

2 From 1030 counter-attack led by McLaws' and Walker's divisions stem the advance of Sedgwick's 2nd division of Federal II Corps about West

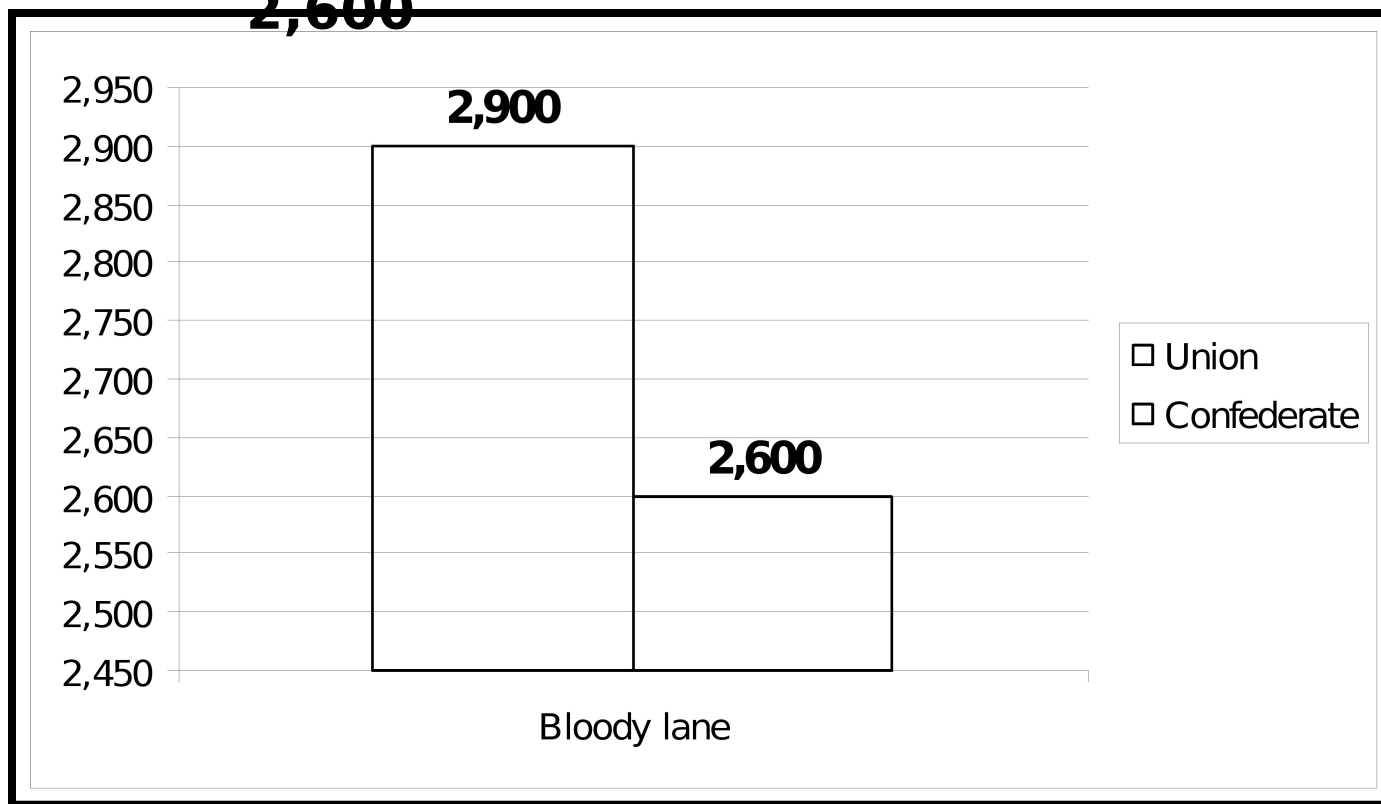
3 From Road oppo attack repulsed
4 Cal disl of R Cum
5 The forc Fed the bein



Midday Phase Casualties



Union ★
2,900
Confederate ★
2,600





Afternoon Phase



Afternoon Phase Chronology

- 1500 Union forces advance toward Sharpsburg
- 1500 to 1600 BG Hill counter-attacks Union forces
- 1630 Action ends

**Union forces MG Burnside
IX corps in the south**

- 1st DIV BG Willcox**
- 2nd DIV BG Sturgis**
- 3rd DIV BG Rodman**
- Kanawha DIV BG Cox**

**Confederate forces MG
Hill's DIV**

Confederate forces
 Garnett
 Jenkins
 Drayton
 Kemper
 Toombs

F Archer
 G Gregg
 H Branch
 I Pender
 J Brackenbrough

CS XX
 D. R. JONES

CS XX
 A. P. HILL

Harper's Ferry

Snively's Ford

Antietam Creek

Nagle's 1st Brigade of
 Sturgis's 2nd Division
 attacks the stone bridge
 but is repulsed
 Sturgis's 2nd Brigade
 (Ferrero) takes bridge
 by 1300 and is followed
 across by Nagle,
 Crooke and Wilcox's
 1st Division
 Meanwhile Rodman's
 3rd Division fords at
 Snively's Ford
 there is a lull until

Rodman with Sturgis
 in rear are ready to
 attack. The attack
 reaches the outskirts of
 Sharpsburg

5 Hill's division arrives
 by 1600 and launches
 vigorous attack on
 Rodman's flank
 6 Scammon's Brigade of
 Kanawha Division
 comes up to stabilize
 the situation by 1630

Sharpsburg

US XX
 1/IX
 WILLCOX

Burns

US XX
 3/
 RODMAN

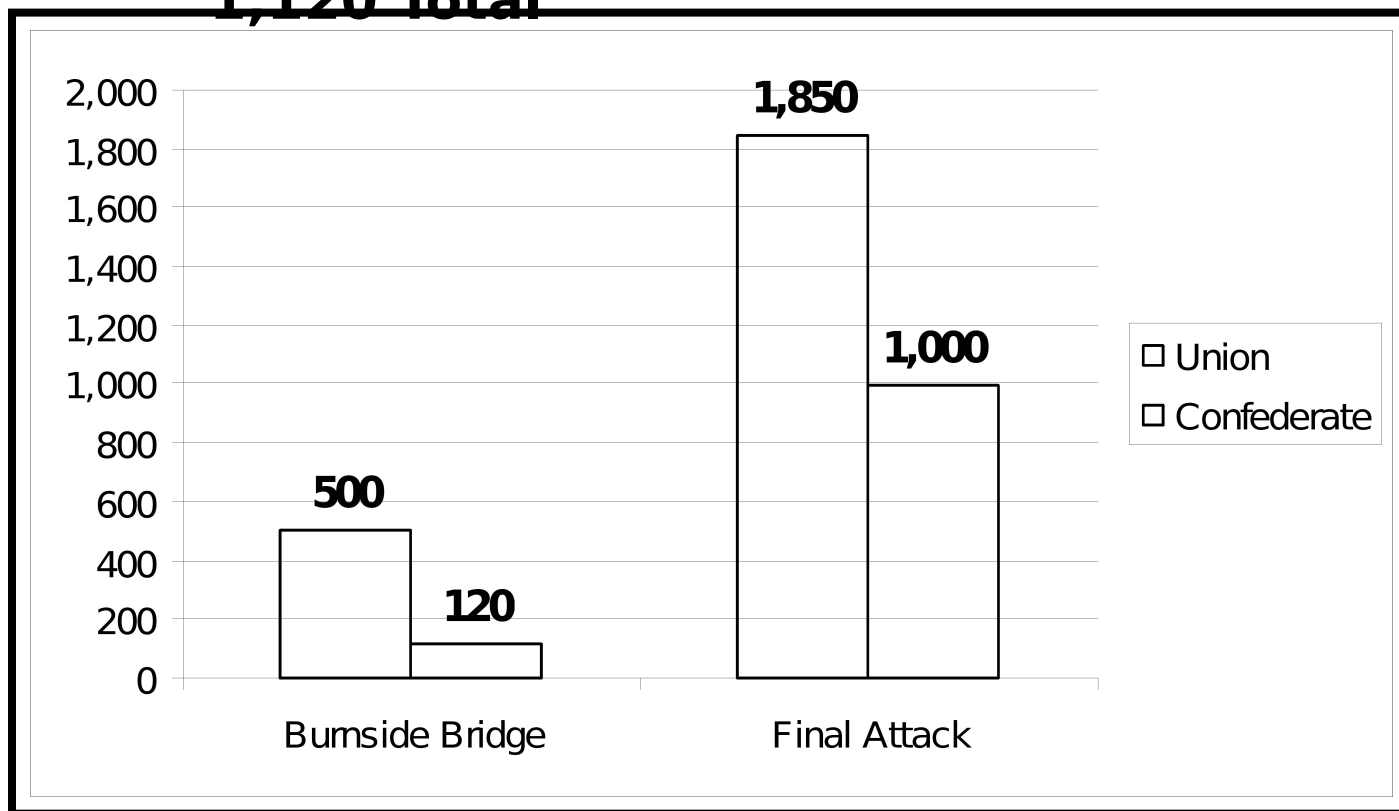
Afternoon Phase



Afternoon Phase Casualties



Union ★
2,350 Total
Confederate ★
1,120 Total



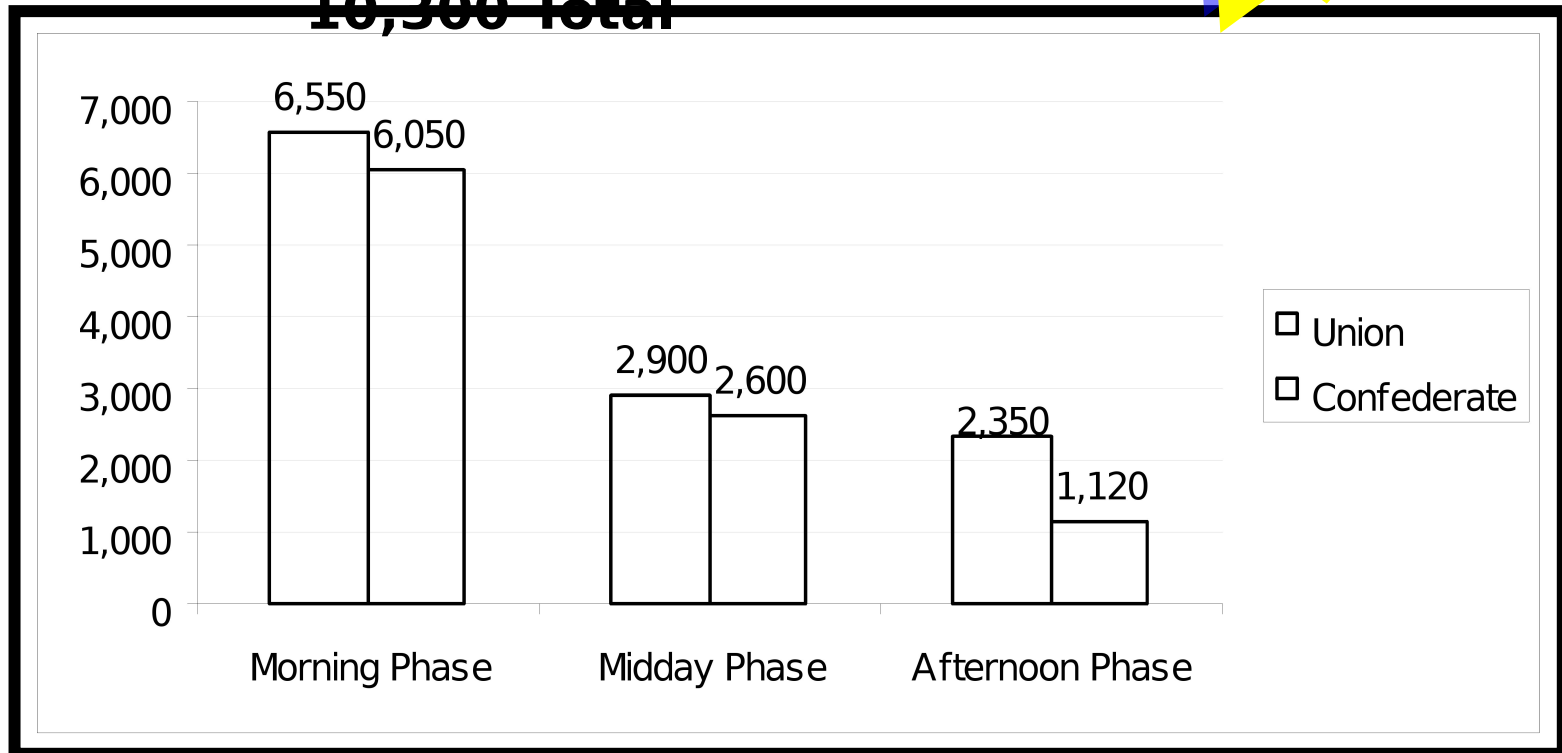


Antietam: The Bloodiest Battle



Union ★
12,400 Total
Confederate ★
10,300 Total

Antietam total
22,700





CSS considerations



LOGISTICAL ANALYSIS

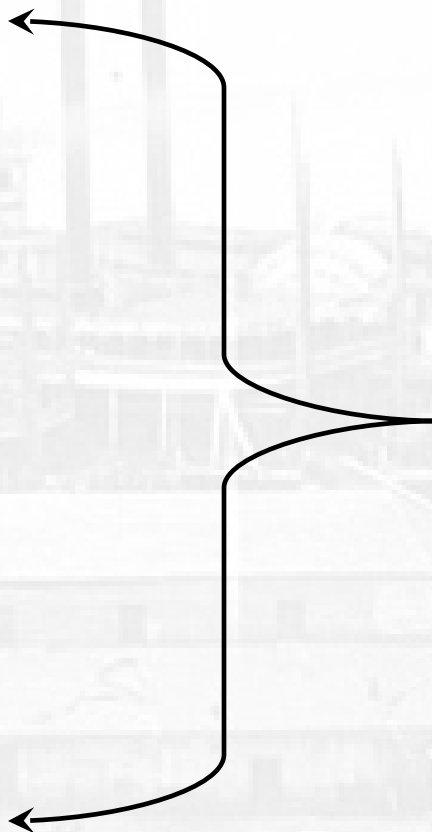


CSS Functions

- Transportation
- Maintenance
- Supply
- Combat Health Services
- Field services
- Human resources support

CSS Characteristics

- Responsiveness
- Simplicity
- Flexibility
- Attainability
- Sustainability
- Survivability
- Economy
- Integration





Setting the Stage / Spring 1862



- Union coastal operations severely restricted incoming supplies
 - One in four blockade runners captured
- CSA Gen Johnston abandoned 1 million lbs of foodstuffs outside Williamsburg
- Campaigning diminished supply reserves of supply




Setting the Stage / Spring 1862




- Confederate Losses in the west dwarfed those in Virginia





Setting the Stage / Spring 1862



- Union capture of Forts Henry and Donelson caused loss of CSA's iron and meat producing areas of the lower Tennessee Valley
 - 1/3 of all hog farms permanently lost to the Union
- Fall of Nashville and New Orleans lost stores and supplies routes



Manifestation



- Loss of depots, “Defensive” Campaigning, loss of supply routes add up
- Affected strategic planning and the degree of success in conducting future campaigns
 - Added to the complexity of support
 - Decreased sustainability
- By August 1862 quartermaster stores were strikingly exhausted



Lee's letter to Davis 3 SEP 62



- “The army is not properly equipped for war, is feeble in transportation... poorly clothed, and in thousands of instances, destitute of shoes.”
- “What occasions me most concern is the fear of getting out of ammunition. I beg you...spare no pains in manufacturing a sufficient amount...”



Union's Key Logistic Requirements for Success

- Reorganize Army
- Maintain lines of communication to Washington



Confederacy's Key Logistic Requirements for Success



- Protect the Shenandoah Valley during harvest
- Protect the Virginian Central RR and other lines of communication
- Seize Harper's Ferry and gain arms and supplies
- Maintain viable wagon route from Winchester VA



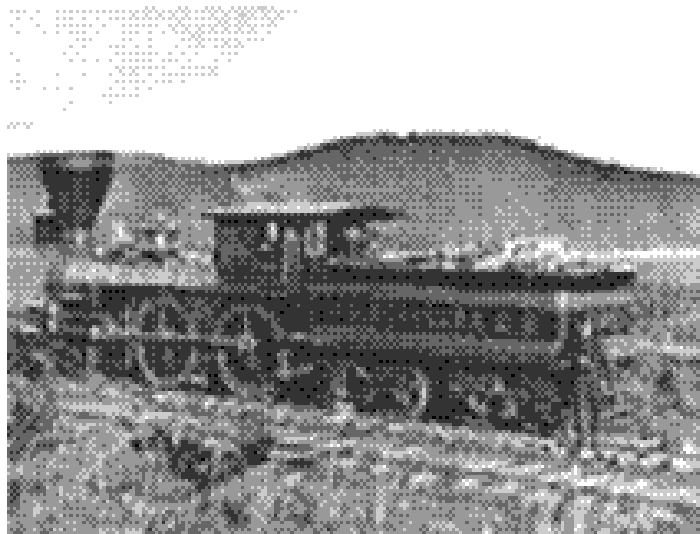
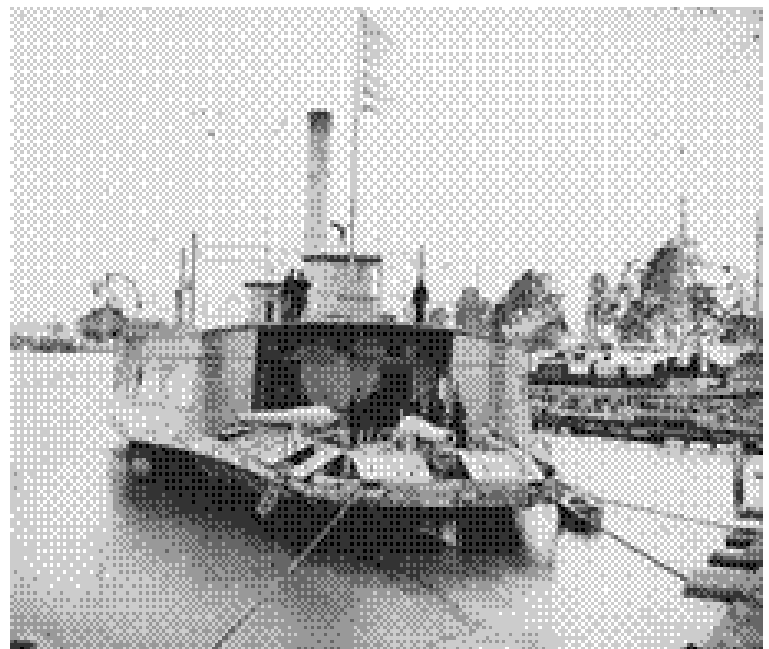
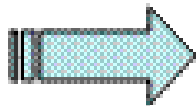
Transportation

- Tactically, only as fast as the foot soldier
- Wagons were primary means of hauling
 - 12-24 miles per day
 - Each wagon took up 12 yards of road...800 wagons spread for 6-8 miles at an easy gate
- “Stonewall” Jackson operated at 1 wagon per 1,000 men during spring of 1862
- Union at Antietam averaged 29 wagons per 1,000 men

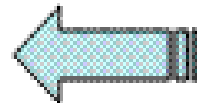




**Water born transport
major Union advantage**



**Strategic: first use of
RR to move troops
around theater.**

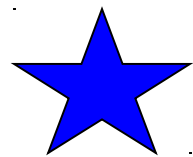




Transportation



- Same methods on both sides
- Union had superior rail and wagon network
- Confederate could not sustain its own logistical requirements with given assets



Union

Advantage
Responsiveness
Integration

Simplicity

Attainability

Sustainability



Maintenance




- Limited on both sides
 - “User level” most common
- Union more able to replace parts
- Forced to do without if un-repairable
- Regimental level support
 - Farrier, black smith, and Saddler sergeant (CAV)
 - Wagoneer
 - Ordnance sergeant

Union "3rd Shop" at Antietam





 **Union**
Advantage
Responsiveness
Sustainability



Combat Health Services



- Surgeons, assistant surgeons in each regiment
- The Lucky were evacuated to field hospitals
- Buddy aid
- Amputation standard treatment
- Piles of thousands of limbs covered rear areas
- If the bullet didn't kill you, the infection would



Health Services Con't



- At night, fighting stopped to allow for collection of wounded

A Union
hospital





Battlefield EVAC/ Salvage

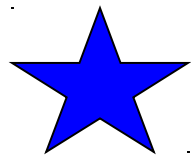
- Beginning of ambulance system (wagons)
- Limited recovery of equipment during fighting
- Buddy Aid
- Litter bearers



Rebel wounded



Combat Health Support



Union

Advantage
Responsiveness

Integration

Sustainability



Field Services



- Both sides did not have what we would consider field services in a modern sense
- Lee's army was hamstrung from want of supplies
 - Proper care was impossible





Union Advantage

Responsiveness

Simplicity

Attainability

Sustainability

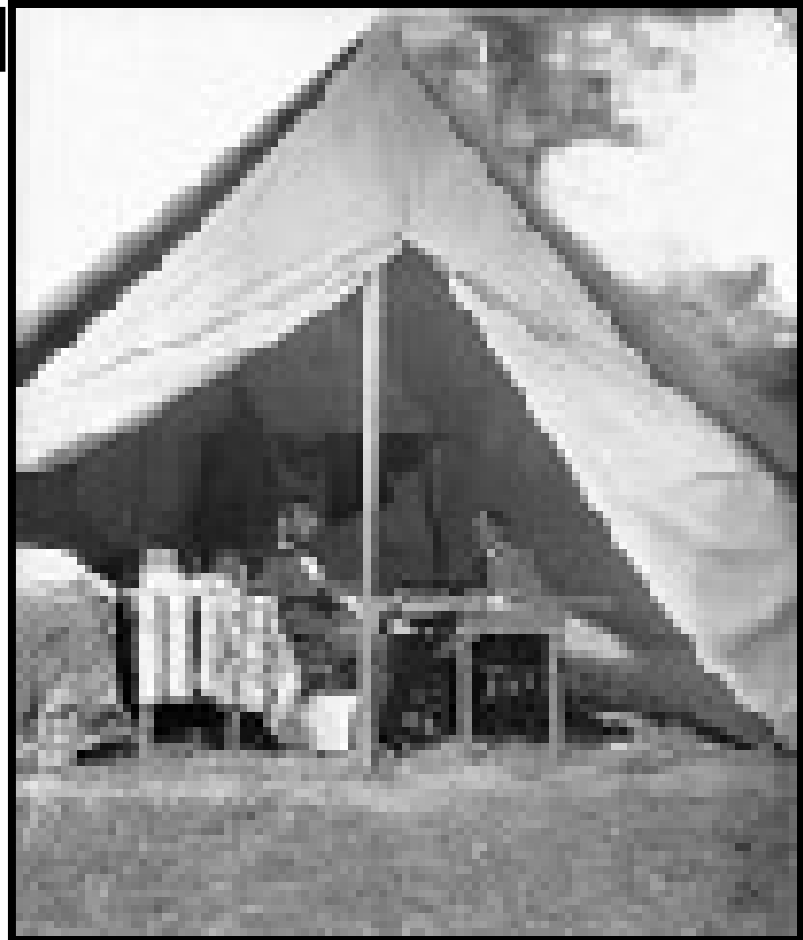
Integration



Human Resource Support



- Limited on both sides
- No power point, what is a CPT to do?





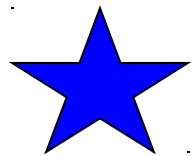
Personnel replacements



- Units stayed together throughout war
- Union had clear advantage in numbers
 - Held units in reserve
- Only replacements the Confederacy could count on were incoming stragglers



Human Resources Support



Union

Responsiveness
Advantage

Attainability

Sustainability



Supply



- Massive requirements, limited capabilities
- Systems were not standardized or centralized
- Logistic failures during this battle forced the armies create new systems



Classes of supply



- Available. Confederate often reduced to foraging
- Procurable. Limited due to distance, policy
 - During this period of the war, both sides were not always efficient
- Distributable. Union had clear advantage in superior rail and wagon capabilities
- Transportable.
 - The Confederate was deficient in this due to lack of horses, wagons, and rail network
 - Could not even take full advantage of windfall at Harper's ferry



Class I

Union

- Standard Daily Ration:
20oz meat/bacon
18oz cornmeal
1.6oz rice
1.6oz coffee
2.4oz sugar
.54oz salt
.34 vinegar
- Short ration:
3/4lbs salt pork
1oz coffee
3oz sugar/salt
*issued 3-4 DOS

Confederate

- Rations were similar
- More sugar, less meat
- Almost never issued in full
- Green Corn and Apples common diet during Maryland Campaign

-  on

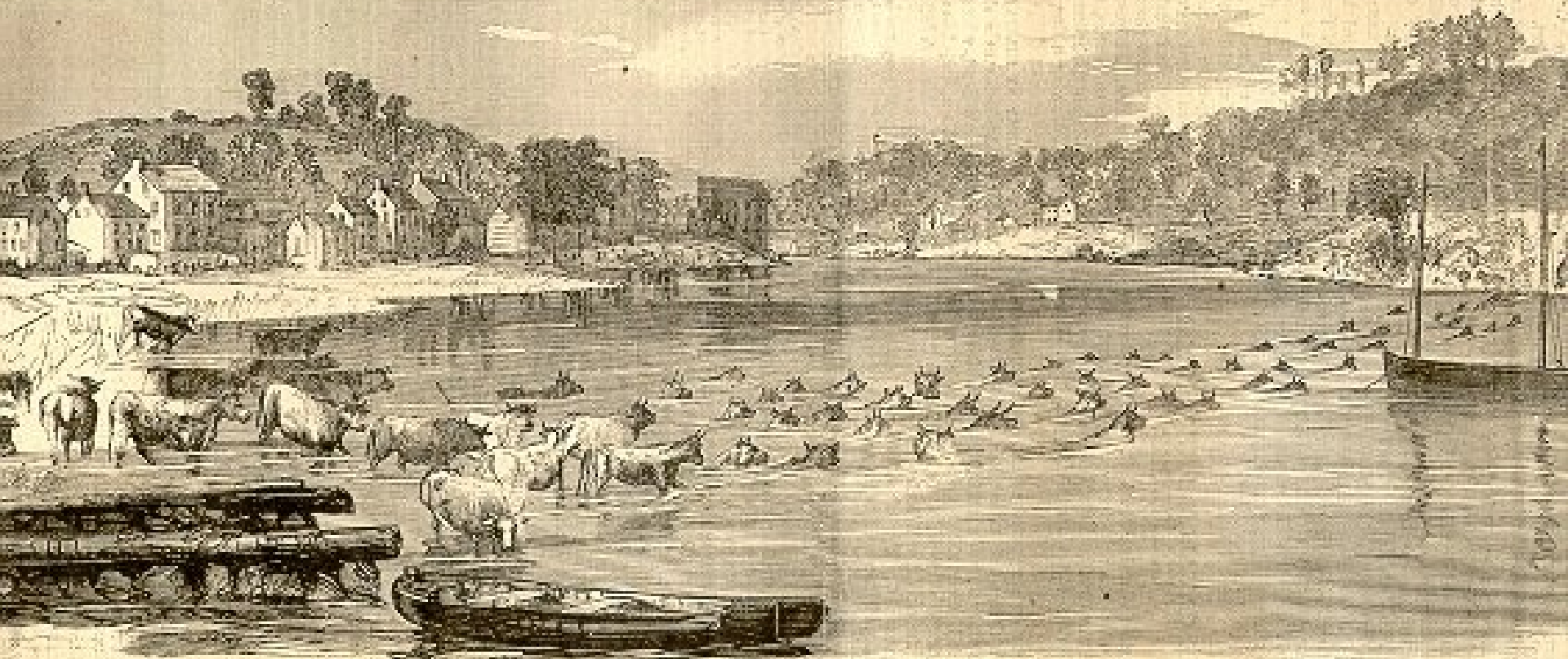
hardtack



Class I (cont.)



- Union: highly effective system of base-advanced-temporary depots for cattle distribution





Class I (cont.)



- Soldiers on both sides were responsible for cooking their own food
- Improper preparation caused great amounts of discomfort among men
- Dirty water cause of many diseases



Class II



Union

- \$42/soldier
- Issued 100,000 pairs of shoes between SEP and OCT 1862





Class II

Confederate

- \$26.95/soldier
- On paper looked good, often relied on home made
- Often shoeless
- Lack of cloth to make clothing (ironic isn't it)



Both sides were notorious for abandoning equipment before battle or before marches. Average Union load weighed 45lbs; Confederate about half that.



Class III (fodder)



Union

- 2.5 million bushels of grain and 1,150 tons of hay per day (total army)

Confederate

- 18 rail cars per day of grain (**unsustainable**)
- RR refusing to ship bulky forage caused chronic shortages



Class V



- Giant demand for this on both sides
 - (Union fired 5 million arty rds during war
Confederates fired 36 million rifle rds per year)
- Similar distribution methods
- Confederate South however, was chronically short on ammo and had to rely on imports
- Example basic loads:
 - Infantry = 200rds, 60rds on hand, 40rds in the BDE trains, 100 in Corps trains
 - Artillery varied by type, averaged 250-400 total



Class VIII



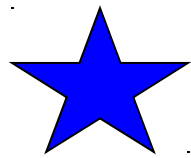
- Local volunteers made bandages from donated sheets, tablecloths
- Clara Barton arrived with wagon load of supplies
 - Stayed three days
 - Bullet clipped her, killed her patient
- Wounded moved into surrounding towns



Supply Installations and Terminals



- Union
 - Washington within 100miles
 - Harrisburg, PA
 - Locals were Union friendly
- Confederate
 - Railhead at Staunton VA 150 miles away
 - Shenandoah Valley was bread basket
 - Harper's Ferry



Union

Advantage
Responsiveness
Survivability

Simplicity
Integration

Flexibility

Attainability

Sustainability



Logistical Analysis



Legend	
	Union Advantage
	Confederate Advantage
	Draw



Union Advantage

Responsiveness						
Simplicity						
Flexibility						
Attainability						
Sustainability						
Survivability						
Economy						
Integration						
	<u>Maintenance</u>	<u>Transportation</u>	<u>Supply</u>	<u>Combat Health Support</u>	<u>Field Services</u>	<u>Human Resource Support</u>



Impact on the battle



- Massive Rebel straggling due to lack of shoes
 - Decreased total numbers
 - CAV Resources spent on “round up”
- Lack of food degrades combat power
- Imagine what a fully fed, shod, and equipped Confederate army could have done

Biggest Impact

Confederate's Lack of Supplies





In Conclusion



Battle Outcome



Weak Confederate logistics resulted in an operational loss for the South, a strategic victory for the North, all without a clear tactical victory at Antietam.



Battle Outcome



Considerations

- Special Order 191
- Union Soldiers fought well at the Regiment and BDE level
- Condition/Morale of Union Soldiers

Long term effects

- Lincoln issued the Emancipation proclamation, Confederate were unable to gain International support
- National Red cross
- After the battle, the Confederates reorganized their supply system



Lessons Learned



- The importance of maintaining and protecting lines of communications and logistics re-supply areas.
- The value of maneuver -VS- the frontal assault.
- Establishing and protecting the Rear area of Operation with regard to terrain and security.



Questions
or
Comments